

**AMENDMENT**

Please amend the application as indicated hereafter.

**Listing of Claims**

Claims 1-11 (Canceled)

12. (Currently amended) A substrate having a tortuous flow path for fluid handling, comprising:

restrictive elements with features of random characters, an image of the features being lithographed onto one or more substrates and etched into the one or more substrates, wherein the one or more substrates are diffusion bonded together to form flow channels; and an integrated tortuous flow path formed within the flow channels and functioning as integrated restrictors forming a monolithically integrated filter.

13. (Original) The substrate of claim 12, wherein the restrictive elements are constructed using an image of a frit structure.

14. (Original) The substrate of claim 12, wherein the restrictive elements are constructed using an image of a foam structure.

15. (Original) The substrate of claim 12, wherein the restrictive elements are constructed using a simulated image of a foam structure.

16. (Original) The substrate of claim 12, wherein the flow channels have non-linear configurations to add length of the integrated tortuous flow path.

17. (Original) The substrate of claim 12, wherein the integrated tortuous flow path functions as integrated filters.

Claims 18-20 (Canceled)